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BOARD OF PATENT APPEALS  
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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte ANDREW MAX NUXOLL, GORDON SCOTT RULONG,  
and DOUGLAS ANDREW WOOD

Appeal No. 2002-0275  
Application No. 09/215,752

ON BRIEF

Before GROSS, BLANKENSHIP, and SAADAT, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, 2, 4-7, 10-14, 16, 18-20, 22, and 24-47, which are all the claims remaining in the application.

We affirm-in-part.

### BACKGROUND

The invention relates to an object-oriented system in which, when an object is created, a Meta Data Service creates and stores a meta definition for the object. Applications query for the meta definition of the object before proceeding with processing of the object. The applications thus do not need to understand the definition or structure of an object. Claim 1 is reproduced below.

1. A method in a software component for processing a data object in a data processing system, said method comprising the computer-implemented steps of:  
  
    sending a query for a meta definition of a data object;  
  
    receiving the meta definition for the data object;  
  
    identifying object attributes in the meta definition; and  
  
    prompting a user to input data values corresponding to the object attributes.

The examiner relies on the following reference:

Maruyama et al. (Maruyama)	5,710,920	Jan. 20, 1998 (filed Dec. 23, 1994)
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Claims 1, 2, 5, 7, 10, 13, 14, 16, 18-20, 22, 24-35, 37, 40, 42, and 46 stand rejected under 35 U.S.C. § 102 as being anticipated by Maruyama.

Claims 4, 6, 11, 12, 36, 38, 39, 41, 43-45, and 47 stand rejected under 35 U.S.C. § 103 as being unpatentable over Maruyama and "well known prior art."

Claims 3, 8, 9, 15, 17, 21, and 23 have been canceled.

We refer to the Final Rejection (Paper No. 8) and the Examiner's Answer (Paper No. 13) for a statement of the examiner's position and to the Brief (Paper No. 12) and the Reply Brief (Paper No. 14) for appellants' position with respect to the claims which stand rejected.

### OPINION

#### Grouping of Claims

We will consider each of appellants' arguments in turn, and select a representative claim when appropriate. We base our selection of representative claims on arguments submitted, rather than on the grouping of claims submitted at page 4 of the Brief. See 37 CFR § 1.192(c)(7). See also In re McDaniel, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) ("If the brief fails to meet either requirement [of 37 CFR § 1.192(c)(7)], the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim.").

#### Independent claims 1, 13, and 19

Appellants contend that the section 102 rejection of claims 1, 13, and 19 as being anticipated by Maruyama is in error because the reference does not teach

"identifying attributes in the meta definition" and "prompting a user to input data values corresponding to the object attributes." (Brief at 5-6.)

According to the statement of the rejection (Answer at 3), "prompting a user" to input data values corresponding to object attributes is taught at column 9, line 38 of Maruyama. Further, according to the examiner, interaction using view manager 101 "inherently" requires displaying command and data entry fields that prompt the user for input. (Id. at 8.)

Maruyama discloses a view manager 101 (Fig. 1) which converts an object defined by the user into a viewable structure such that the user may enter commands and data. A parts object manager 102 manages a parts object to be held in database 107 when a characteristic based on a new definition is prescribed for an object which has already been defined. Database 107 thus holds objects and parts objects. Col. 3, ll. 41-59. Figures 6A to 6F show examples of a type definition object and a relation definition object which are present in a schema (i.e., a set of definitions of data). Col. 1, ll. 8-11; col. 5, ll. 42-46. Figures 7A and 7B show examples of parts objects that are appended to the definitions of Figures 6A to 6F when an object attribute is changed or added. Col. 6, ll. 14-20.

Figure 13 shows how a change in type definition is performed when restructuring the database. The user designates an object identifier of a type definition object to the object manager 103 through view manager 101. If a type definition needs to be changed because of information contained in a parts attribute object, then the attribute

change information is acquired from the parts object manager 102 and the attribute information owned by the type definition is changed accordingly. Col. 9, ll. 37-64.

Maruyama may be viewed as inherently describing prompting a user to input data values corresponding to object attributes, as when the user may initially define an object. As a different, but express, example of prompting for input, Maruyama describes a procedure for an attribute change at column 7, line 61 through column 8, line 37 (Fig. 10), wherein a user inputs information including an "attribute value" (col. 7, l. 66). Maruyama's disclosed procedure for attribute change appears closer to the claimed subject matter than the portion of the reference the rejection relies upon. In any event, in the description deemed by the examiner to relate to querying and receiving a meta definition of a data object there is no disclosure, express or inherent, of prompting a user to input data values corresponding to the object attributes. The user only enters information to identify the type definition object that is to be restructured in the database. The data values corresponding to the object attributes are acquired from parts object manager 102 (step 1004 of Fig. 13), rather than as a result of prompting for user input.

We therefore agree with appellants that the combinations set forth by independent claims 1, 13, and 19 have not been shown in Maruyama. We thus do not sustain the section 102 rejection of those claims and their depending claims; i.e., claims 1, 2, 5, 13, 14, 19, 20, 25, 26, 30, and 31.

Independent claims 7, 16, and 22

In response to the section 102 rejection of claims 7, 16, and 22 over Maruyama, appellants argue that it is unclear where the step of receiving a data value stream is taught in the portion of the reference upon which the rejection relies. Appellants allege that the cited portion of the reference does not disclose mapping data values to a data structure according to attributes in a received meta definition. According to appellants, Maruyama "only teaches managing changes to data type definitions within an object-oriented database." (Brief at 7.)

The examiner replies that a "data value stream" can be reasonably and broadly interpreted as any transfer of data between software components. (Answer at 8.) Appellants appear not to traverse the finding that a data value stream may be any transfer of data between software components. "However, if the reference teaches a transfer of data that includes meta data for the data, then there is no need to retrieve a meta definition from a Meta Data Service or to map data values to a data structure according to attributes in a received meta definition." (Reply Brief at 5.)

We do not consider appellants' argument to be based on what is actually claimed. Instant, representative claim 7 recites "receiving a data value stream." As we have discussed previously herein, Maruyama describes, at column 9, lines 37 through 64, a user entering an object identifier using view manager 101 (Fig. 1). View manager 101 receives a data value stream comprising the object identifier entered by the user. Based on the particular object identifier, the software sends a query for a meta

definition of a data object; i.e., a meta definition of a type definition object. As depicted in Figures 2A through 2C of Maruyama, meta definition information includes type, attribute, and procedure data objects. Col. 3, l. 61 - col. 4, l. 41. The requested meta definition is received as shown in step 1001 in Figure 13 of the reference. Further, "mapping data values to a data structure according to attributes in the meta definition of the data object" fairly describes the restructuring of the database in Maruyama. Data values within the data base are changed in accordance with attributes in the meta definition of the type definition data object. The data values are changed (or updated) when the parts object manager 102 contains attribute change information. Maruyama provides an example of a computer type definition object (Fig. 6B) having an appended parts attribute object (Fig. 7A) which deletes "OS name" and appends "hard-disc size" to the attribute of the computer type. Col. 5, l. 47 - col. 6, l. 20. In light of the description related to the operation shown in Figure 13 of the reference, when restructuring the data base, data values are mapped to locations in an essentially new data structure (i.e., when combining information from the original object and the associated parts object, resulting in the change of attribute information owned by the type definition).

Because we find that the reference meets all requirements of representative claim 7, we sustain the section 102 rejection of claims 7, 16, and 22 over Maruyama.

Independent claims 35, 42, and 46

In response to the section 102 rejection of claims 35, 42, and 46, appellants argue that Maruyama cannot anticipate the claims because the reference "is concerned only with an object-oriented database and not the manner in which objects are processed in a distributed data processing system." (Brief at 6 and 8.) The examiner points out that a "distributed data processing system" is not claimed. (Answer at 7.)

The difference between representative claim 35 and the previous group of claims (e.g., claim 7) is that claim 35 recites "processing the data object according to attributes in the meta definition of the data object to form a second data value stream for the data object," rather than mapping data values to a data structure. Since we agree with the examiner that a "data value stream" as broadly claimed is no different from values passed between software components, and passing of values between software components occurs during the restructuring of the database described in column 9 of Maruyama, appellants' arguments do not persuade us of error in the rejection. We sustain the section 102 rejection of claims 35, 42, and 46 over Maruyama.

Section 102 rejection -- dependent claims 2, 5, 10, 14, 18, 20, 24-34, 37, 40

As previously noted, we do not sustain the rejection of claims 2, 5, 14, 20, 25, 26, 30, or 31, because the claims depend from independent claims 1, 13, or 19.

In view of the subject matter of claim 10, the rejection thereof under section 102 is in error. With respect to that particular claim, it is irrelevant whether Maruyama



teaches a Meta Data Service (Answer at 4). We do not sustain the rejection of claim 10.

Appellants provide no separate arguments for claims 18, 24, 27, 28, 32, or 33, and have not shown the rejection to be in error. We sustain the rejection of claims 18, 24, 27, 28, 32, and 33.

With respect to claims 29 and 34, appellants argue (Brief at 10-11) that Maruyama teaches an object-oriented database system, and that the "relation definition" that the rejection cites in the reference does not teach a relational database. We agree with appellants' assessment. We do not sustain the rejection of claims 29 or 34.

With respect to claim 37, appellants appear to rely (Brief at 8) on limitations from independent claims, but do submit that in Maruyama there is no need to determine the object type. We find that Maruyama teaches determining the object type at column 9, lines 37 through 43, where the user designates an object identifier of a type definition object to the object manager. We therefore sustain the rejection of claim 37.

Finally, with respect to claim 40, appellants argue (Brief at 8-9) there is no need for a Meta Data Service in Maruyama because the reference does not teach or suggest applications in a network for receiving or transmitting attribute value data in a "soft format." Appellants have not explained why a Meta Data Service relates to a "soft format," have not explained why the reference is not considered to disclose a "soft format," and, more important, have not explained how the claim might require the

features that are argued. Having not persuaded us of error in the rejection, we sustain the rejection of claim 40.

Section 103 rejections -- dependent claims 4, 6, 11, 12, 36, 38, 39, 41, 43-45, and 47

We do not sustain the section 103 rejection of claim 4 or 6, since the claims depend from independent claim 1 and the rejection does not remedy the deficiency in that applied against claim 1.

With respect to claims 11, 12, 38, 39, 44, and 45, appellants assert features of the claims (Brief at 13), relying on alleged deficiencies in the rejections, each of which we address elsewhere in this opinion. Appellants' arguments are not persuasive of nonobviousness. We sustain the rejection of claims 11, 12, 38, 39, 44, and 45.

With respect to claim 41, appellants argue (Brief at 11-12) that Maruyama does not teach or suggest receiving or transmitting attribute data in a "soft format," which is not persuasive in view of the actual requirements of claim 41. The additional arguments, nominally in defense of claim 41, are not in the form of separate arguments for patentability, but appear to relate to the supposed patentability of base claim 35. We are not convinced of error, and sustain the rejection of claim 41.

With respect to claims 36, 43, and 47, appellants argue (Brief at 12-13) that the object-oriented database of Maruyama would not be able to store data values received in a "soft format," and therefore it would not have been obvious to transmit the second

data value stream to a Persistent Object Service. As we have noted previously, appellants have not explained the perception that Maruyama cannot relate to a "soft format" -- whatever appellants may mean by the term -- or, more important, how the instant claims might relate to the argued feature. Appellants having not shown error in the rejection of claims 36, 43, or 47, we sustain the rejection.

#### CONCLUSION

We have considered all of appellants' arguments in making our determinations. Arguments not relied upon are deemed waived. See 37 CFR § 1.192(a) ("Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences, unless good cause is shown.") and §§ 1.192(c)(8)(iii),(iv) (the brief must point out the errors in the rejection).

The rejection of claims 1, 2, 5, 10, 13, 14, 19, 20, 25, 26, 29, 30, 31, and 34 under 35 U.S.C. § 102 is reversed. The rejection of claims 7, 16, 18, 22, 24, 27, 28, 32, 33, 35, 37, 40, 42, and 46 under 35 U.S.C. § 102 is affirmed.

The rejection of claims 4 and 6 under 35 U.S.C. § 103 is reversed. The rejection of claims 11, 12, 36, 38, 39, 41, 43-45, and 47 under 35 U.S.C. § 103 is affirmed.

The examiner's decision in rejecting claims 1, 2, 4-7, 10-14, 16, 18-20, 22, and 24-47 is thus affirmed-in-part.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

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ANITA PELLMAN GROSS  
Administrative Patent Judge

Howard B. Blankenship  
HOWARD B. BLANKENSHIP

HOWARD B. BLANKENSHIP  
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